

FILE 'AGRICOLA, MEDLINE, CAPLUS, BIOSIS' ENTERED AT 09:37:32 ON 06 JUN
2006

L1	2185 S PENICILLIUM (2N) CITRINUM
L2	76 S L1 AND REDUCTASE
L3	21 S L1 (10N) REDUCTASE
L4	16 DUP REM L3 (5 DUPLICATES REMOVED)
L5	9 S L4 AND PY<2003
L6	4 S ASAKO
L7	1006 S ASAKO OR SHIMIZU
L8	0 S L7 AND CITRINUM

=>

L5 ANSWER 1 OF 9 MEDLINE on STN
 AN 82007510 MEDLINE
 DN PubMed ID: 7275844
 TI Dihydrocompactin, a new potent inhibitor of 3-hydroxy-3-methylglutaryl coenzyme-A **reductase** from *Penicillium citrinum*
 AU Lam Y K; Gullo V P; Goegelman R T; Jorn D; Huang L; DeRiso C; Monaghan R L; Putter I
 SO The Journal of antibiotics, (1981 May) Vol. 34, No. 5, pp. 614-6.
 Journal code: 0151115. ISSN: 0021-8820.
 CY Japan
 DT Journal; Article; (JOURNAL ARTICLE)
 LA English
 FS Priority Journals
 EM 198111
 ED Entered STN: 16 Mar 1990
 Last Updated on STN: 16 Mar 1990
 Entered Medline: 18 Nov 1981

L5 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2002:446160 CAPLUS
 DN 137:19459
 TI Manufacture of optically active 4-halo-3-hydroxybutanoate by asymmetric reduction of 4-halo-3-oxobutanoate with transgenic microorganisms
 IN Asako, Hiroyuki; Matsumura, Kenji; Shimizu, Masatoshi; Ito, Nobuya; Wakita, Ryuhei
 PA Sumitomo Chemical Company, Limited, Japan
 SO Eur. Pat. Appl., 56 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1213354	A2	20020612	EP 2001-310251	20011207 <--
	EP 1213354	A3	20030205		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2002212158	A2	20020731	JP 2001-6144	20010115 <--
	JP 2002223789	A2	20020813	JP 2001-26594	20010202 <--
	JP 2002233392	A2	20020820	JP 2001-290839	20010925 <--
	JP 2003061682	A2	20030304	JP 2001-340304	20011106
	US 2003134402	A1	20030717	US 2001-4115	20011206
	US 6884607	B2	20050426		
	US 2005019816	A1	20050127	US 2004-920239	20040818
PRAI	JP 2000-372704	A	20001207		
	JP 2001-6144	A	20010115		
	JP 2001-26594	A	20010202		
	JP 2001-175175	A	20010611		
	US 2001-4115	A3	20011206		

OS CASREACT 137:19459; MARPAT 137:19459

AB A method of manufacturing of optically active 4-halo-3-hydroxybutanoic acids from the corresponding 4-halo-3-oxobutanoate using by stereospecific enzymic reduction is described. The method uses a **reductase** from *Penicillium citrinum*. The gene for the enzyme is expressed in a transgenic host such as *Escherichia coli*. The enzyme was purified chromatog. from mycelium of *Penicillium citrinum* and amino acid sequence-derived primers used to clone the gene. *Escherichia coli* expressing the gene for the enzyme was used to reduce 4-bromo-3-oxobutanoate to methyl-(S)-4-Bromo-3-hydroxybutanoate. Cells, 0.4 g wet weight, were incubated with Me 4-bromo-3-oxobutanoate 1500 mg in the presence of NADP+ 18 mg, glucose 3000 mg, glucose dehydrogenase 3 mg, in 15 mL of

phosphate buffer pH 6.5 and Bu acetate 15 mL at 30° for 7 h. Yield was 99.2% with an ee of 95.7%.

L5 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2001:137378 CAPLUS

DN 134:173918

TI *Penicillium citrinum* genes associated with biosynthesis of ML-236B, precursor of a 3-hydroxy-3-methylglutaryl CoA reductase inhibitor

IN Abe, Yuki; Hosobuchi, Masahiko; Yoshikawa, Hiroji

PA Sankyo Company, Ltd., Japan

SO PCT Int. Appl., 128 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001012814	A1	20010222	WO 2000-JP5420	20000811 <--
	W: AU, BR, CA, CN, CZ, HU, ID, IL, IN, KR, MX, NO, NZ, PL, RU, TR, US, ZA				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	JP 2001112487	A2	20010424	JP 2000-240722	20000809 <--
PRAI	JP 1999-227696	A	19990811		

AB Genes associated with biosynthesis of ML-236B, a precursor of pravastatin, a 3-hydroxy-3-methylglutaryl CoA (HMG-CoA) **reductase** inhibitor, from *Penicillium citrinum*, are disclosed. PCR primers corresponding to those gene sequences are claimed. A gene cluster containing 6 genes, named *mlcA*, *mlcB*, *mlcC*, *mlcD*, *mlcE*, and *mlcR*, was cloned from *Penicillium citrinum* SANK13380 strain and sequenced. *Penicillium citrinum* strains transformed with those genes and having improved ML-236B production (average 12%) were obtained.

RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1994:75515 CAPLUS

DN 120:75515

TI Production of ML-236B, and inhibitor of 3-hydroxy-3-methylglutaryl CoA **reductase** by *Penicillium citrinum*: improvements of strain and culture conditions

AU Hosobuchi, Masahiko; Shioiri, Tetsuya; Ohyama, Jo; Arai, Masatoshi; Iwado, Seigo; Yoshikawa, Hiroji

CS Ferment. Res. Lab., Sankyo Co., Ltd., Iwaki, 970-04, Japan

SO Bioscience, Biotechnology, and Biochemistry (1993), 57(9), 1414-19

CODEN: BBBIEJ; ISSN: 0916-8451

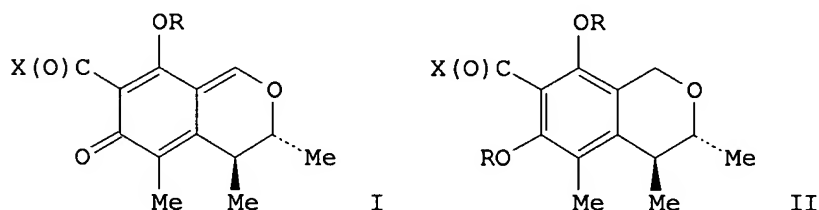
DT Journal

LA English

AB In order to increase the yield of ML-236B, an intermediate for pravastatin Na (an inhibitor of cholesterol synthesis) production, the improvements of an ML-236B-producing strain of *P. citrinum*, the medium composition, and the culture conditions were studied. A mutant strain S-5808, which produces 20-fold more ML-236B than the original strain does in flask culture, was isolated. As S-5808 required a large amount of the C source for production of ML-236B, a fed-batch culture method was developed. The continuous feeding of the C source (glycerol or mixture of glycerol and maltose) was very effective for high ML-236B production ML-236B in the culture broth became oily with the decreasing pH during cultivation, adhered to the cells, decreased substrate consumption, and finally stopped ML-236B production late in fermentation The addition of a polypropylene glycol-type surfactant enhanced ML-236B productivity.

L5 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1992:248436 CAPLUS
 DN 116:248436
 TI Aldose reductase inhibitors contain citrinin derivatives or
 dihydrocitrinin derivatives for treatment of diabetic complication
 IN Takemura, Ayako; Yamamoto, Hideki; Donho, Munehiko
 PA Unitika Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 5 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 04009332	A2	19920114	JP 1990-111259	19900425 <--
PRAI	JP 1990-111259		19900425		
GI					



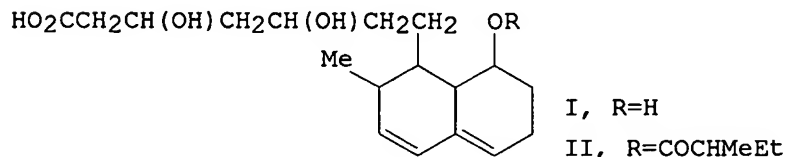
AB Aldose reductase inhibitors contain citrinin derivs. I or dihydrocitrinin
 derivs. II [R = H, R1, COR1 (R1 = alkyl, alkenyl, aryl, aralkyl); X = OR2,
 NR2R3 (R2, R3 = H, alkyl, alkenyl, aryl, aralkyl)], which are useful for
 prevention and treatment of diabetic complication. *Penicillium citrinum*
 (IFO 4631) was aerobically cultured in a medium containing glucose, meat
 extract,
 peptone, and NaCl at 28° for 5 days to produce citrinin (III).
 IC50 of III against aldose reductase was 3.4 + 10-6M.. III at 200
 mg/kg p.o. did not cause death in mice.

L5 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1987:192494 CAPLUS
 DN 106:192494
 TI Effect of nitrate reductase on the reduction of iron
 AU Shakhobova, B. B.
 CS Nauchno-Issled. Inst. Pochvoved., Dushanbe, USSR
 SO Izvestiya Akademii Nauk Tadzhikskoi SSR, Otdelenie Biologicheskikh Nauk (
 1986), (2), 84-6
 CODEN: ITOBAO; ISSN: 0002-3477
 DT Journal
 LA Russian
 AB Eight strains of aerobic bacteria and fungi were studied for their ability
 to reduce NO3- and Fe(OH)3. There was no correlation between the 2
 parameters. *Asperigillus niger*, *Fusarium oxysporum* And 2 strains of
Arthrobacter aureus reduced Fe(OH)3 but had no effect on NO3-. In
 contrast, *Streptomyces albus* reduced NO3- but had no effect on Fe3+.
Penicillium glaucum And *P. citrinum* showed variable reactions. One strain
 of *A. aureus* reduced Fe3+ but not NO3-.

L5 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1977:85285 CAPLUS
 DN 86:85285
 TI Competitive inhibition of 3-hydroxy-3-methylglutaryl coenzyme A reductase

by ML-236A and ML-236B fungal metabolites, having hypocholesterolemic activity

AU Endo, Akira; Kuroda, Masao; Tanzawa, Kazuhiko
CS Fermentation Res. Lab., Sankyo Co., Ltd., Tokyo, Japan
SO FEBS Letters (1976), 72(2), 323-6
CODEN: FEBLAL; ISSN: 0014-5793
DT Journal
LA English
GI



AB Fungal metabolites, ML-236A (I) and ML-236B (II), from *Penicillium citrinum* inhibited 3-hydroxy-3-methylglutaryl-CoA reductase, the rate-limiting enzyme in the pathway of cholesterol synthesis. The acid forms (Na salts) of both compds. were more potent inhibitors than the lactone forms and both forms of II were more effective than those of I. Inhibition was competitive with respect to 3-hydroxy-3-methylglutaryl-CoA and noncompetitive with respect to NADPH. The K_i values were 0.22 μM for I Na salt and 0.010 μM for II Na salt.

L5 ANSWER 8 OF 9 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
AN 1982:103371 BIOSIS
DN PREV198223033363; BR23:33363
TI TOTAL SYNTHESIS OF DEXTRO COMPACTIN ML-236B.
AU WANG N-Y [Reprint author]; HSU C-T; SIH C J
CS SCH PHARM, UNIV WIS, MADISON, WIS 53706, USA
SO Journal of the American Chemical Society, (1981) Vol. 103, No. 21, pp. 6538-6539.
CODEN: JACSAT. ISSN: 0002-7863.
DT Article
FS BR
LA ENGLISH

L5 ANSWER 9 OF 9 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
AN 1979:266972 BIOSIS
DN PREV197968069476; BA68:69476
TI HYPO LIPIDEMIC EFFECTS IN MONKEYS OF ML-236B A COMPARATIVE INHIBITOR OF 3-HYDROXY-3-METHYL GLUTARYL COENZYME A REDUCTASE.
AU KURODA M [Reprint author]; TSUJITA Y; TANZAWA K; ENDO A
CS FERMENT RES LAB, SANKYO CO LTD, 1-2-58 HIROMACHI, SHINAGAWA, TOKYO 140, JPN
SO Lipids, (1979) Vol. 14, No. 6, pp. 585-589.
CODEN: LPDSAP. ISSN: 0024-4201.
DT Article
FS BA
LA ENGLISH

AB The fungal metabolite ML-236B from *Penicillium citrinum*, a competitive inhibitor of 3-hydroxy-3-methylglutaryl CoA reductase, was effective in lowering serum cholesterol levels in cynomolgus monkeys at doses of 20-50 mg/kg per day. Levels of serum phospholipids and triglycerides were not significantly changed by the administration of the drug. Of the serum lipoprotein fractions a β-lipoprotein corresponding to low density lipoprotein was preferentially reduced by the drug treatment. Fecal excretion of neutral

sterols was unaffected, but that of bile acids was slightly elevated by the administration of ML-236B.

Inventory Search

10

	U	1	Document ID	Kind Codes	Source	Issue Date	Pages
1	X		US 20050191738 A1	10/668,625	US-PGPUB	20050901	23
2	X		US 20050063994 A1	X 10/899,551	US-PGPUB	20050324	117
3	X		US 20050019816 A1	10/920,239	US-PGPUB	20050127	41
4	X		US 20040091902 A1	instant	US-PGPUB	20040513	16
5	X		US 20030186400 A1	10/064,115 10/884,607	US-PGPUB	20031002	26
6	X		US 20030134402 A1	10/914,335	US-PGPUB	20030717	41
7	X		US 20030039660 A1	10/064,115	US-PGPUB	20030227	114
8	X		US 6884607 B2	X	USPAT	20050426	37
9	X		US 5264484 A	X	USPAT	19931123	5
10	X		US 4229539 A	X	USPAT	19801021	6
11	X		US 4127654 A	X	USPAT	19781128	13
12	X		JP 2002223789 A		JPO	20020813	6
13	X		JP 11164683 A		JPO	19990622	5
14	X		JP 04365499 A		JPO	19921217	7
15	X		EP 1378566 A2	A2, A3	EPO	20040107	28
16	X		EP 1213354 A	205 or 271	DERWENT	20020612	37

	Title
1	Modified reductase and its gene, and use thereof
2	Methods and reagents for decreasing clinical reaction to allergy
3	Process for producing optically active-4-halo-3-hydroxybutanoate
4	Modified reductase and its gene
5	Method for producing optically active 2-hydroxycycloalkanecarboxylic acid ester
6	Process for producing optically active 4-halo-3-hydroxybutanoate
7	Recombinant hybrid allergen constructs with reduced allergenicity that retain immunogenicity of the natural allergen
8	Process for producing optically active 4-halo-3-hydroxybutanoate
9	Room temperature curable organopolysiloxane composition having mildewproofing property
10	.beta.-Galactosidase and production thereof
11	Compositions and methods containing beta substituted allyl alcohols, sulfuric acid esters thereof, phosphoric acid esters thereof, alkanoyl esters thereof and alkylene oxide ethers thereof
12	METHOD FOR PRODUCING OPTICALLY ACTIVE 3-HYDROXYBUTYRIC ESTER COMPOUND
13	PROMOTION OF INFECTION OF PLANT BELONGING TO GENUS EUCALYPTLIS WITH MYCORRHIZAL FUNGUS AND INFECTION PROMOTER
14	INDICATOR FOR HIGH-PRESSURE STERILIZATION
15	Modified reductase from Penicillium citrinum and its encoding gene
16	New protein preferentially producing (S)-4-bromo-3-hydroxybutanoate by asymmetrically reducing 4-bromo-3-oxobutanoate, useful in pharmaceuticals and agrochemicals

	Type	Hits	Search Text
1	BRS	1	US20030134402A1
2	BRS	2	"6884607"
3	BRS	474	penicillium near1 citrinum
4	BRS	139	S103 and reductase
5	BRS	2155	asako
6	BRS	10	S105 and citrinum
7	BRS	616	"110" and "245"
8	BRS	4	S106 and "245"
9	BRS	12	L5 near10 reductase
10	BRS	474	penicillium near1 citrinum
11	BRS	16	l3 and citrinum
12	BRS	142777	shimizu or asako
13	BRS	14	l1 and citrinum
14	BRS	140765	shimizu
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17	BRS	2	"20050019816"
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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1	1731	100.0	325	2	US-10-004-115B-1	Sequence 1, Appli
2	574.5	33.2	312	2	US-09-734-237B-42	Sequence 42, Appl
3	574.5	33.2	313	2	US-09-734-237B-44	Sequence 44, Appl
4	558.5	32.3	290	2	US-09-248-796A-17316	Sequence 17316, A
5	555	32.1	312	2	US-09-487-558B-438	Sequence 438, App
6	555	32.1	313	2	US-09-734-237B-39	Sequence 39, Appl
7	547.5	31.6	344	2	US-09-630-983A-20	Sequence 20, Appl
8	547	31.6	328	2	US-10-040-416-6	Sequence 6, Appli
9	545.5	31.5	328	2	US-10-040-416-4	Sequence 4, Appli
10	543.5	31.4	313	2	US-09-347-803-6	Sequence 6, Appli
11	541	31.3	322	2	US-09-734-237B-32	

GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.

OM protein - protein search, using sw model

Run on: December 16, 2005, 19:49:35 ; Search time 189 Seconds
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755.546 Million cell updates/sec

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Perfect score: 1731
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Maximum DB seq length: 2000000000

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Maximum Match 100%
Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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3	1731	100.0	325	8	ADH44214	Adh44214 Penicilli
4	1731	100.0	325	8	ADL18258	Adl18258 Penicilli
5	1731	100.0	325	8	ADK70247	Adk70247 Penicilli
6	1731	100.0	325	8	ADM46686	Adm46686 325 amino
7	1731	100.0	325	8	ADM46567	Adm46567 Penicilli
8	1731	100.0	325	8	ADK51190	Adk51190 Wild-type
9	1731	100.0	325	8	ADN97092	Adn97092 3 hydroxy
10	1728	99.8	325	8	ADK51203	Adk51203 Mutant Pe
11	1726	99.7	325	8	ADK51204	Adk51204 Mutant Pe
12	1723	99.5	325	8	ADK51205	Adk51205 Mutant Pe
13	972.5	56.2	255	8	ADN20743	Adn20743 Bacterial

14	575.5	33.2	312	2	AAW29220	Aaw29220 S. cerevi
15	574.5	33.2	312	2	AAW29217	Aaw29217 S. cerevi
16	574.5	33.2	312	4	AAG63565	Aag63565 Amino aci
17	574.5	33.2	312	5	ABG93198	Abg93198 S. cerevi
18	574.5	33.2	312	8	ADS43942	Ads43942 Bacterial
19	574.5	33.2	313	4	AAG63566	Aag63566 Synthetic
20	573.5	33.1	312	2	AAW29218	Aaw29218 S.

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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2	1731	100.0	325	4	US-10-327-108-3	Sequence 3, Appli
3	1731	100.0	325	4	US-10-608-533-1	Sequence 1, Appli
4	1731	100.0	325	5	US-10-920-239-1	Sequence 1, Appli
5	1731	100.0	325	5	US-10-608-625-1	Sequence 1, Appli
6	994.5	57.5	309	4	US-10-425-115-287371	Sequence 287371,
7	972.5	56.2	255	4	US-10-369-493-3396	Sequence 3396, Ap
8	881	50.9	224	4	US-10-425-115-240890	Sequence 240890,
9	659	38.1	185	4	US-10-425-115-332876	Sequence 332876,
10	574.5	33.2	312	3	US-09-734-237B-42	Sequence 42, Appl
11	574.5	33.2	312	4	US-10-369-493-22372	Sequence 22372, A
12	574.5	33.2	312	4	US-10-451-467A-354	Sequence 354, App
13	574.5	33.2	312	5	US-10-989-488A-42	Sequence 42, Appl
14	574.5	33.2	313	3	US-09-734-237B-44	Sequence 44, Appl
15	574.5	33.2	313	5	US-10-989-488A-44	Sequence 44, Appl
16	568	32.8	321	4	US-10-369-493-2285	Seq

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- 5: /cgn2_6/ptodata/1/pubpaa/PCT_NEW_PUB.pep:*
- 6: /cgn2_6/ptodata/1/pubpaa/US10_NEW_PUB.pep:*
- 7: /cgn2_6/ptodata/1/pubpaa/US11_NEW_PUB.pep:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query		Length	DB	ID	Description
		Match					
1	1731	100.0		325	6	US-10-617-034A-3	Sequence 3, Appli
2	547.5	31.6		344	6	US-10-606-302-20	Sequence 20, Appl
3	486.5	28.1		316	6	US-10-821-234-1526	Sequence 1526, Ap
4	457	26.4		323	6	US-10-878-556A-13	Sequence 13, Appl
5	454	26.2		323	6	US-10-878-556A-12	Sequence 12, Appl
6	448	25.9		285	7	US-11-074-176-206	Sequence 206, App
7	428.5	24.8		305	7	US-11-055-822-860	Sequence 860, App
8	423.5	24.5		364	6	US-10-623-155-172	Sequence 172, App
9	423.5	24.5		371	6	US-10-623-155-433	Sequence 433, App
10	393	22.7		269	7	US-11-055-822-856	Sequence 856, App
11	374.5	21.6		232	6	US-10-793-626-2194	Sequence 2194

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 3: pir3:*
 4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query		DB	ID	Description
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1	574.5	33.2	312	1	S22846	probable aldehyde
2	568	32.8	321	2	T38413	probable oxidoredu
3	559.5	32.3	323	2	S78113	aldehyde reductase
4	555	32.1	312	2	S61163	aldo-keto reductas
5	553	31.9	327	1	S76143	probable aldehyde
6	548.5	31.7	325	2	T39169	probable oxidoredu
7	547.5	31.6	344	1	S46020	probable aldehyde
8	529.5	30.6	309	2	A84599	hypothetical prote
9	529	30.6	290	2	T02543	aldehyde dehydroge
10	527.5	30.5	309	2	B84599	hypothetical prote
11	523.5	30.2	294	2	T02542	probable alcohol d
12	523.5	30.2	313	2	T09670	abscisic

Database : UniProt_05.80:*
 1: uniprot_sprot:*
 2: uniprot_trembl:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	1514	87.5	325	2	Q877A2_ASPOR	Q877a2 aspergillus
2	1477	85.3	325	2	Q4WQ65_ASPFU	Q4wq65 aspergillus
3	1471	85.0	325	2	Q5B1L7_EMENI	Q5b1l7 aspergillus
4	1471	85.0	325	2	Q7Z8L1_EMENI	Q7z8l1 emericella
5	1205.5	69.6	331	2	Q7S3U4_NEUCR	Q7s3u4 neurospora
6	1191	68.8	327	2	Q6RZX1_TRIAT	Q6rzx1 trichoderma
7	1137.5	65.7	323	2	Q51QM9_MAGGR	Q51qm9 magnaporthe
8	1038	60.0	256	2	Q4I4F0_GIBZE	Q4i4f0 gibberella
9	1037	59.9	254	2	O74646_GIBZE	O74646 gibberella
10	635	36.7	355	2	Q4PHK0_USTMA	Q4phk0 ustilago ma
11	623	36.0	1224	2	Q4P7C0_USTMA	Q4p7c0 ustilago ma
12	602.5	34.8	332	2	Q4IEY5_GIBZE	Q4iey5 gibberella
13	595.5	34.4	309	2	Q55SW0_CRYNE	Q55sw0 cryptococcu
14	593.5	34.3	309	2	Q5KH94_CRYNE	Q5kh94 cryptococcu
15	583	33.7	310	2	Q6FR42_CANGA	Q6fr42 candida gla
16	575.5	33.2	310	2	Q6FY54_CANGA	Q6fy54 candida gla
17	574.5	33.2	312	1	GCY_YEAST	P14065 saccharomyc
18	570.5	33.0	309	2	Q6CRC8_KLULA	Q6crc8